

WE CLAIM:

1. A system for transforming and exchanging datastore data between heterogeneous computer systems using different datastore formats for storing similar information, said system comprising:

means for transforming and processing import datastore data into generic format data according to predetermined import transformation rules and functions;

means for converting said generic format data into export datastore data according to predetermined export transformation rules and functions; and

an interface to communications means for receiving said import datastore data and for transmitting said export database data.

2. A distribution system for transforming and exchanging data between heterogeneous computer systems, comprising:

a) a systems interface for defining logical import and export data interfaces, data transformation rule sets and scripts;

b) a metadata database for storing said logical import and export data interfaces, data transformation rule sets and scripts;

c) a script processor for controlling data transformation within said systems interface and movement of said data into and out of said distribution system; and

d) a rule set processor responsive to said script processor for manipulating a data bag for storing imported data and a data bag for storing export data.

3. A distribution system as claimed in Claim 2, wherein said systems interface comprises a configuration management user interface used by a user to define said

logical import and export data interfaces, and create data transformation rule sets and scripts.

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4. A distribution system as claimed in Claim 3,<sup>2</sup> wherein said logical import and export data interfaces comprise import and export data connections, import and export data views and said import and export data bags.

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5. A distribution system as claimed in Claim 4,<sup>3</sup> wherein said logical import data interface is used to import data from an import data source into said distribution system.

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6. A distribution system as claimed in Claim 5,<sup>4</sup> wherein said import data view is used during execution of said script processor to load data from said import data source into said import data bag.

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7. A distribution system as claimed in Claim 4,<sup>3</sup> wherein said logical export data interface is used to export data in said data bag out to an export data target.

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8. A distribution system as claimed in Claim 7,<sup>4</sup> wherein export data view of said export data bag is used during execution of said script processor to save data from said export data bag out to said export data target.

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9. A distribution system as claimed in Claim 2,<sup>1</sup> wherein defined scripts stored in said metadata database are executed by said script processor.

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10. A distribution system as claimed in Claim 2,<sup>1</sup> wherein said rule processor is invoked by said script processor to transform the import data bag into the export data bag based on predefined data transformation rules.

11.<sup>10</sup> A distribution system as claimed in Claim 2 wherein said script processor makes use of a script control language for controlling data transformation within said system interface and movement of said data into and out of said distribution system.

12.<sup>11</sup> A distribution system as claimed in Claim 11,<sup>10</sup> wherein said script control language comprises a set of script commands and a script command processor to process and execute each of a number of script command lines.

13.<sup>12</sup> A distribution system as claimed in Claim 12,<sup>11</sup> wherein said set of script commands comprises a load command to load data into an import data bag from an import data connection; a sort command for sorting data in a data bag into a different order; a merge command for merging together data in a number of data bags; an append command for appending data from one data bag into another data bag; a copy command for copying one data bag into another data bag; a join command for joining two or more data bags into another data bag; a format command for formatting a data bag into another data bag using a defined rule set; and a save command for saving data from an export data bag out to an export data connection.

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Cont.  
14. In a distribution system for transforming and exchanging data between heterogeneous computer systems, a method of controlling data transformation within said distribution system, comprising the steps of:

a) loading data into an import data bag from a logical import data interface and performing any one or more of the following steps to convert the data to a desired format in an export data bag;

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- 1) sorting said data according to a predetermined order;
  - 2) merging data from a number of data bags into one data bag;
  - 3) appending data from a first data bag into another data bag of the same type;
  - 4) copying data from a first data bag into another data bag of the same type;
  - 5) joining data from two or more data bags into another data bag using a specified key;
  - 6) formatting data from a data bag into another data bag of a different type, using a defined rule set; and
- b) saving the data in the export data bag out to an export data connection.

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15. A method as claimed in Claim 14 wherein said logical import data interface comprises import data connections, import data views and said import data bag.

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16. A method as claimed in Claim 15 wherein said logical import data interface is used to import data from an import data source into said distribution system.

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17. A method as claimed in Claim 16 wherein said import data view is used during execution of a script processor to load data from said import data source into said import data bag.

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Cont.  
18. A computer readable memory for transforming and exchanging datastore data between heterogeneous computer systems using different datastore formats for storing similar information, comprising:

means for transforming and processing import datastore data into generic format data according to

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concl.

predetermined import transformation rules and functions;  
and

means for converting said generic format data  
into export datastore data according to predetermined  
export transformation rules and functions.

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